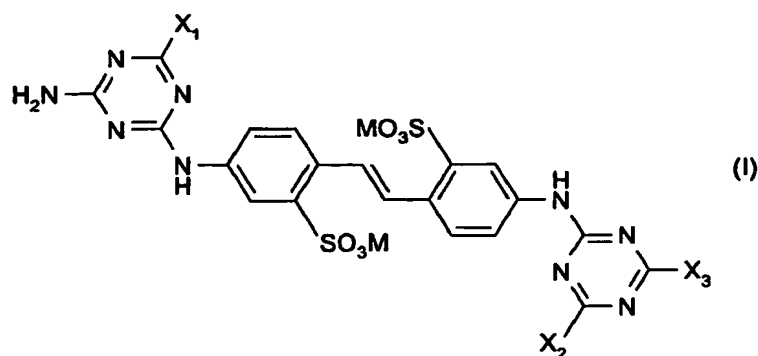


Claims

1. A composition for the fluorescent whitening of paper comprising
 - a) a fluorescent whitening agent (FWA) derived from 4,4'-bis[(1,3,5-triazin-2-yl)amino]stilbene-2,2'-disulphonic acid and characterized by one or both of the triazine rings carrying an -NH₂ substituent;
 - b) water and
 - c) optionally, further auxiliaries.
2. A composition according to claim 1, comprising
 - 5 to 50% by weight of the FWA component a),
 - 50 to 95% by weight of water and
 - 0 to 40% by weight of component c), each based on the total weight of the composition, wherein the sum of the components a) to c) amounts to 100%.
3. A composition according to claim 1 or claim 2, in which the fluorescent whitening agent is a compound of the formula (I)



wherein

X₁, X₂ and X₃ each, independent of the other, represent -NR₁R₂ or -OR₃, wherein R₁ and R₂ are, independently of each other,

hydrogen, a C₁-C₄alkyl-group, which is unsubstituted or substituted by one or two of the following residues selected from the group consisting of C₁-C₄alkoxy, hydroxy, carboxy, cyano, carbonamido, thiol, guanidine, substituted or unsubstituted phenyl, unsubstituted or C₁-C₄alkyl-substituted C₅-C₈cycloalkyl, halogen, a heterocycle and a

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sulphonic acid residue, and wherein the carbon chain of an alkyl group having two, three or four carbon atoms can be interrupted by oxygen, or, alternatively,

R₁ and R₂, together with the nitrogen atom linking them, complete a 5- or 6-membered heterocyclic ring;

R₃ represents C₁-C₄alkyl and

M represents H, Na, Li, K, Ca, Mg, ammonium, or ammonium that is mono-, di-, tri- or tetrasubstituted by C₁-C₄alkyl and/or C₂-C₄hydroxyalkyl.

4. A composition according to claim 3, in which, in the compound of formula (I),

X₁ and X₂ each independently, represent -NH₂, -NHC₁-C₄alkyl, -N(C₁-C₄alkyl)₂, -NHC₂-C₄hydroxyalkyl, -N(C₂-C₄hydroxyalkyl)₂, -N(C₁-C₄alkyl)(C₂-C₄hydroxyalkyl), -NH(C₂-C₄alkylene-C₁-C₄alkoxy), -N(C₂-C₄alkylene-C₁-C₄alkoxy)₂, -NHC₁-C₄alkylphenyl, tetrahydrofurfurylamino, morpholino, piperidino, pyrrolidino or cyclohexylamino or an amino acid or amino acid amide residue from which a hydrogen atom has been abstracted from the amino group and

X₃ represents -NH₂.

5. A composition according to claim 4, in which, in the compound of formula (I),

X₁ and X₂ both represent -NH₂, -NHC₁-C₂alkyl, -N(C₁-C₂alkyl)₂, -NHCH₂CH₂OH, -N(CH₂CH₂OH)₂, -N(C₁-C₂alkyl)(CH₂CH₂OH), -NHCH₂CH₂OCH₃, -N(CH₂CH₂OCH₃)₂, -NHCH₂CH₂-O-CH₂CH₂-OH, -N(CH₂CH₂-O-CH₂CH₂-OH), -NHCH₂CO₂M'', -N(CH₃)CH₂CO₂M'', -NHCH₂CH₂CO₂M'', -NHCH(CO₂M'')CH₂CH₂CH₂NHC(=NH)NH₂, tetrahydrofurfurylamino, benzylamino, cyclohexylamino, pyrrolidino or morpholino and M'' represents H, K, Na, ammonium or ammonium that is mono-, di-, tri- or tetra-substituted by C₁-C₄alkyl and/or C₂-C₄hydroxyalkyl.

6. Use of a composition according to any one of claims 1 to 5 for the fluorescent whitening of paper in the pulp mass, in coating or in the metering size-press or film press.

7. Use, according to claim 6, for the fluorescent whitening of paper in coating or in the metering size-press or film press.

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8. Use, according to claims 6 or 7, for the fluorescent whitening of paper in the metering size-press or film press.

9. A process for the fluorescent whitening of paper by treating the paper with a composition according to any one of claims 1 to 5.

10. Paper, which has been whitened with a composition according to any one of claims 1 to 5.